

# Notice of Allowability

Application No.

09/752,649

Examiner

Brad T. Mace

Applicant(s)

LIU, PETER YONGCHUN

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on July 2, 2004.
2. ☒ The allowed claim(s) is/are 2-4 and 6-19, renumbered as 1-17, respectively.
3. ☒ The drawings filed on 29 December 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

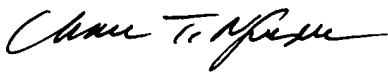
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 5/12/04
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
CHAU NGUYEN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

## DETAILED ACTION

### *Drawings*

1. In order to avoid abandonment, the drawing informalities noted in the paper mailed on 5/12/2004, must now be corrected (the corrected drawing sheet(s) were not received). Correction can only be effected in the manner set forth in the above noted paper.

### *Allowable Subject Matter*

2. Claims 2-4, and 6-19 are allowed.

3. The following is an examiner's statement of reasons for allowance:

Claims 2, 6, and 16 (under 112 6<sup>th</sup> paragraph) are allowable over the prior art of record since the cited references taken individually or in combination fails to disclose a plurality of matrixes each coupled to every of said set of data input lines and each having a set of data output lines, the set of data output lines of each of said plurality of matrices to be coupled to a different one of said line cards, wherein for each of said plurality of matrices, a plurality of sets of control lines, each matrix entry in a row of the matrix coupled to the same one of said sets of control lines and each matrix entry in a column of the matrix coupled to the same bit position data input line of each of said different line cards to selectively store in any given row of the matrix the data on one of said sets of data input lines; and the matrix entries of a column are coupled in series to selectively move the data on a row-by-row basis considered in combination with other limitations recited in claims 2, 6, and 16.

Claim 9 is allowable over the prior art of record since the cited references taken individually or in combination fails to disclose a plurality of matrixes, for each of said plurality of matrices, a plurality of sets of control lines, each matrix entry in a row of the matrix coupled to the same one of said sets of control lines, wherein each row is coupled to a different one of said sets of control lines, each matrix entry including, a space mux, each space mux in a column of the matrix coupled to the same bit position data input line of each of said different line cards, a storage element coupled to the output of said space mux, and a shift element coupled to the output to the output of said storage element and the output of the shift element of the preceding matrix entry in the same column considered in combination with other limitations recited in claim 9.

Claim 17 is allowable over the prior art of record since the cited references taken individually or in combination fails to disclose providing on given intervals to each of a plurality of matrices a plurality of ordered bits from every one of a plurality of different line cards; for each of said plurality of matrices, selectively storing on given intervals in any given row of the matrix the plurality of ordered bits from one of said plurality of different line cards, wherein said rows are coupled in series, and selectively moving on given intervals data in one row of the matrix to a next row in the series considered in combination with other steps recited in claim 17.

It is noted that the closest prior art, Calvignac et al. (U.S. Patent No. 6,195,335) discloses a crossbar switch fabric having a set of crosspoint buffers for storing at least one data packet. An input adapter is provided at each input, which includes a queue for

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temporarily storing data packets to be transmitted through the switch fabric. There is also disclosed an input scheduler for selecting which queue to transmit a packet to a crosspoint buffer and an output scheduler for selecting which crosspoint buffer to output a stored data packet. However, Calvignac et al. fails to disclose or render obvious the above limitations as claimed.

### **Conclusion**

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brad T. Mace whose telephone number is (571) 272-3128. The examiner can normally be reached on Monday -Thursday.

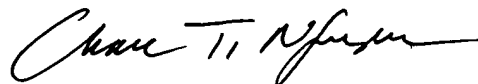
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

btm

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Art Unit 2663

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